

DO replicates were all taken from same "even" numbered niskins. Merge sample 045 - doesn't actually have a DO sample it would be 46a and 46b

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2010-73 Station: SOG-3 Event #: 13 Ship: VECTOR UTC Date (dd|mmm|yyyy): 31 | 10 | 2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed √ Pressure	Oxy	Nut	Sal	CH ₄ a	NH ₄	DOC	TOC	PH	DOM		
1	45	2020	2.816	300	323	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5mab
2	46	2014	2.810	"	323	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3	47	3034	2.817	300	302	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
4	48	2091	2.834	"	302	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
5	49	94	2.885	250	251	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6	50	1314	2.883	"	251	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
7	51	1247	2.968	200	201	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
8	52	3016	2.972	"	201	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
9	53	1473	3.289	150	150	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
10	54	1300	3.289	"	150	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
11	55	1318	3.086	100	101	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
12	56	1307	3.074	"	101	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
13	57	745	3.178	75	75	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
14	58	1298	3.180	"	75	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
15	59	1395	3.374	50	50	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
16	60	1392	3.362	"	50	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
17	61	1408	4.223	30	30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
18	62	1397	4.231	"	30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
19	63	1421	4.654	20	20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
20	64	1488	4.651	"	20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
21	65	3033	5.487	10	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
22	66	708	5.480	"	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
23	67	1322	6.534	0	1.2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
24	68	3203	6.527	"	1.2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Watchkeeper(s):

Bottom Depth: 328 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1421	
Bottom	1429	
End	1447	

Positional Information
Start
Lat: 49° 01.514 N
Lon: 123° 26.852 W

Bottom
Lat: 49° 01.526 N
Lon: 123° 26.887 W

End
Lat: 49° 01.447 N
Lon: 123° 27.166 W

Oxygen Info For This Cast
Blank Value: 0.003 mL · L⁻¹
Std Value: 0.832 mL · L⁻¹
*Date Run: 31 | 10 | 2010
Analyst: MGL

* Oxygen blanks and standards should be run daily, if possible

<http://www.WaterProperties.ca>

all
reps

DO = DIC out of Bottles = even
all others = odd

Computer crashed at 300m. Started new cast. Refired Bottles 1 & 2 then continued

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2010-73

Station: SOG-N

Event #: 11

Ship: VECTOR

UTC Date (dd|mmm|yyyy): 30 | 10 | 2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken								Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	chl a	NH ₄	pH	DOC	TOC	
1	21	2061	2.767	Bot-5	320						✓✓	✓	✓	Only 1 bottle fired at 100m. Niskin # 21 did not fire.
2	22	3188	2.773	"	320	✓✓	✓✓	✓	✓	✓				
3	23	2015	2.807	300	300						✓	✓	✓	
4	24	639	2.626	"	300	✓✓	✓	✓	✓	✓				
5	25	3096	2.861	250	250						✓	✓	✓	
6	26	3119	2.845	"	250	✓✓	✓	✓	✓	✓				
7	27	2092	2.914	200	200						✓	✓	✓	N21 didn't fire?
8	28	3100	2.910	"	200	✓✓	✓	✓	✓	✓				
9	29	2025	2.942	150	150						✓	✓	✓	
10	30	3193	2.925	"	150	✓✓	✓	✓	✓	✓				
11	31	3196	3.046	100	100						✓✓	✓	✓✓	
12	32	3104	3.046	"	100	✓✓	✓✓	✓	✓	✓				
13	33	3206	4.663	75	75						✓	✓	✓	
14	34	3142	4.653	"	75	✓✓	✓	✓	✓	✓				
15	35	2063	5.348	50	50						✓	✓	✓	
16	36	1128	5.427	"	50	✓✓	✓	✓	✓	✓				
17	37	1106	5.337	30	30						✓	✓	✓	
18	38	3177	5.331	"	30	✓✓	✓	✓	✓	✓				
19	39	3200	5.686	20	20						✓	✓	✓	
20	40	3189	5.688	"	20	✓✓	✓	✓	✓	✓				
21	41	1209	5.695	10	10						✓	✓	✓	
22	42	712	5.875	"	10	✓✓	✓	✓	✓	✓				
23	43	1213	5.742	0	10						✓✓	✓✓	✓✓	
24	44	3137	5.734	"		✓✓	✓✓	✓	✓✓	✓				

Version: 29 Feb 2008

Transmissometer to be cleaned before each cast, do not use Ammonia products

Watchkeeper(s):

Bottom Depth: 320 m

Transmissio Cleaned: Y / N

Time	UTC	Local
Start	1443	
Bottom	1454	
End		

Positional Information
Start
Lat: 49° 49.406' N
Lon: 124° 51.493' W

Bottom
Lat: 49° 49.332' N
Lon: 124° 51.748' W

End
Lat: ° N
Lon: ° W

Oxygen Info For This Cast

Blank Value: 0.005 mL · L⁻¹

Std Value: 0.832 mL · L⁻¹

*Date Run: 5/11/10

Analyst: ML

* Oxygen blanks and standards should be run daily, if possible

<http://www.WaterProperties.ca>

Check replicates

Replicates of DO were taken from the same niskins and the "even" numbered bottles as the Sample #'s are wrong - sample 21 doesn't have a DO measurement it is 22a and 22b

NOTE: Only 1 bottle fired at 100m (sample 31) and Niskin # 21 didn't fire but did close. See 2010-73-0011 for details on actual sampling, G. Gatién, Aug. 2011.

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2010-73

Station: FRI

Event #: 01

Ship: VECTOR

UTC Date (dd|mmm|yyyy): 30 | 10 | 10

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments	
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	Chl a	NH ₄	88	DO	PH	DOCT	POC		CDOM
1	001					1.5											
2	002	3190	6.252			1.5	✓✓	✓	✓	—	✓	✓	✓	✓	✓		Surface cast
3	003	3024	6.162														only
4																	
5																	
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22																	
23																	
24																	

Watchkeeper(s): DS/cw/LW

Bottom Depth: 11.5 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start		
Bottom	0519	
End		

Positional Information

Start Lat: 49 ° 6.733 N
 Lon: 123 ° 16.711 W

Bottom Lat: ° N
 Lon: ° W

End Lat: ° N
 Lon: ° W

Oxygen Info For This Cast

Blank Value: 0.003 mL · L⁻¹
 Std Value: 0.832 mL · L⁻¹
 *Date Run: 2 | 11 | 10
 Analyst: W61

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2010-73

Station: FR2

Event #: 02

Ship: VECTOR

UTC Date (dd|mmm|yyyy): 30|10|2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken								Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	Chl a	NH ₄	PH	DOct	POC	
1	3				1.2									
2	4	3113	6.031		1.2	✓	✓	✓	✓	✓	✓	✓	✓	
3		1485	6.097											
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23														
24														

Watchkeeper(s): DS

Bottom Depth: 12.5 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start		
Bottom	0539	
End		

Positional Information

Start

Lat: ° N

Lon: ° W

Bottom

Lat: 49 ° 6.167 N

Lon: 123 ° 18.035 W

End

Lat: ° N

Lon: ° W

Oxygen Info For This Cast

Blank Value: 0.003 mL · L⁻¹

Std Value: 0.832 mL · L⁻¹

*Date Run: 2|11|10

Analyst: W61

* Oxygen blanks and standards should be run daily, if possible

REPLICATES

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2010-73

Station: FR3

Event #: 3

Ship: VECTOR

UTC Date (dd|mmm|yyyy): 30 | 10 | 2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken								Comments		
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	Chl ^{BIO} _a	NH ₄ _{ADV4}	PH	DOY _{TOC}	POC		CDOM	
1	05					1.3										
2	06	3067	6.064			1.3	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3		3047	6.079													
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24																

Watchkeeper(s): DS RM CW LW

Bottom Depth: 91 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start		
Bottom	601	
End		

Positional Information

Start

Lat: ° N

Lon: ° W

Bottom

Lat: 49 ° 6.418 N

Lon: 123 ° 19.573 W

End

Lat: ° N

Lon: ° W

Oxygen Info For This Cast

Blank Value: 0.003 mL · L⁻¹

Std Value: 0.832 mL · L⁻¹

*Date Run: 21/11/10

Analyst: Wol

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2010-73 Station: FR4 Event #: 4 Ship: VECTOR UTC Date (dd|mmm|yyyy): 30 | 10 | 2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	chl a	NH ₄	DIC/TALK	pH	DO/HTOC	PAC	COOM	
1	07					1.6										
2	08	3198	6.223			1.6	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3		2085	6.204													
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Watchkeeper(s): DS

Bottom Depth: 146 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start		
Bottom	0613	
End		

Positional Information

Start
 Lat: ° N
 Lon: ° W

Bottom
 Lat: 49 ° 6.665 N
 Lon: 123 ° 20.927 W

End
 Lat: ° N
 Lon: ° W

Oxygen Info For This Cast

Blank Value: 0.003 mL · L⁻¹
 Std Value: 0.832 mL · L⁻¹
 *Date Run: 2 | 11 | 10
 Analyst: Mel

* Oxygen blanks and standards should be run daily, if possible

check replicates

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2010-73

Station: FR5

Event #: 05

Ship: VECTOR

UTC Date (dd|mmm|yyyy): 30 | 10 | 2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken								Comments		
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	Chl ⁵¹⁸⁰ ☒	NH₄ DISK	PH	POC/DOC POC	CPOM			
1	9															
2	10	2049	6.057			1.4	✓✓	✓✓	✓✓	✓	✓✓	✓✓	✓✓	✓	✓✓	
3		1377	6.057													
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Watchkeeper(s): DS

Bottom Depth: 183 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start		
Bottom	<u>0637</u>	
End		

Positional Information

Start Lat: ° N
 Lon: ° W

Bottom Lat: 49 ° 7.013 N
 Lon: 123 ° 27.440 W

End Lat: ° N
 Lon: ° W

Oxygen Info For This Cast

Blank Value: 0.063 mL · L⁻¹
 Std Value: 0.832 mL · L⁻¹
 *Date Run: 31/11/10
 Analyst: Wlel

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2010-73 Station: FR6 Event #: 06 Ship: VECTOR UTC Date (dd|mmm|yyyy): 30 | 10 | 2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation			Samples Taken										Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ☒	Pressure	Oxy	Nut	Sal	chl a	NH ₄	pH	DOctree	POC	CDOM		
1	11			S	☒	1.3											
2	12	3019	6.258	S	☒	1.3	☒	☒	☒	☒	☒						2nd oxy flask empty
3																	
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Watchkeeper(s): DS

Bottom Depth: 218 m
Transmisso Cleaned: ☒ Y / N

Time	UTC	Local
Start		
Bottom	0651	
End		

Positional Information
Start
Lat: ° N
Lon: ° W

Bottom
Lat: 49° 7.337 N
Lon: 123° 23.804 W

End
Lat: ° N
Lon: ° W

Oxygen Info For This Cast
Blank Value: 0.003 mL · L⁻¹
Std Value: 2832 mL · L⁻¹
*Date Run: 3 | 11 | 10
Analyst: Wlel

* Oxygen blanks and standards should be run daily, if possible

duplicate DO not count.

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2010-73 Station: FR7 Event #: 7 Ship: VECTRA UTC Date (dd|mmm|yyyy): 30 | 10 | 2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	CHL	NH ₄	PH	DOC	TOC	POC	CDOM	
1	13				1.3						✓	✓	✓	✓		
2	14	3151	6.175		1.3	✓	✓	✓	✓	✓						
3		3090	6.180													
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Watchkeeper(s): DS

Bottom Depth: 283 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start		
Bottom	<u>0708</u>	
End		

Positional Information

Start
 Lat: ° N
 Lon: ° W

Bottom
 Lat: 49 ° 8.029 N
 Lon: 123 ° 26.214 W

End
 Lat: ° N
 Lon: ° W

Oxygen Info For This Cast

Blank Value: 0.003 mL · L⁻¹
 Std Value: 0.832 mL · L⁻¹
 *Date Run: 31.11.10
 Analyst: Wep

* Oxygen blanks and standards should be run daily, if possible

REPLICATES

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2010-73 Station: FR8 Event #: 8 Ship: VECTOR UTC Date (dd|mmm|yyyy): 30 | 10 | 2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken								Comments		
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Chl a	NH ₄ ALK	pH	DOC TOC	DOC		CDOM	
1	15					1.6						✓✓	✓✓		✓✓	
2	16	2068	6.226			1.6	✓✓	✓	✓	✓	✓✓					
3		2047	6.226													
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Watchkeeper(s): DS

Bottom Depth: 321 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start		
Bottom	0725	
End		

Positional Information

Start	Lat: °	N
	Lon: °	W

Bottom

Lat: 49 °	8.658	N
Lon: 123 °	28.697	W

End

Lat: °	N
Lon: °	W

Oxygen Info For This Cast

Blank Value:	0.003	mL · L ⁻¹
Std Value:	0.832	mL · L ⁻¹
*Date Run:	3 11 10	
Analyst:	Mei	

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2010-73 Station: FR 9 Event #: 9 Ship: VECTOR UTC Date (dd|mmm|yyyy): 30 | 10 | 2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken										Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	CHL a	NH ₄ ALK	pH	DOC TOC	Poc	CDOM		
1	17				1.6											
2	18	3201	6.282		1.6	✓✓	✓	✓	✓	✓		✓	✓	✓		
3		3075	6.288													
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Watchkeeper(s): PS

Bottom Depth: 347 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start		
Bottom	<u>0740</u>	
End		

Positional Information
 Start
 Lat: 49° 9.385 N
 Lon: 123° 30.997 W

Bottom
 Lat: ° N
 Lon: ° W

End
 Lat: ° N
 Lon: ° W

Oxygen Info For This Cast
 Blank Value: 0.003 mL · L⁻¹
 Std Value: 0.832 mL · L⁻¹
 *Date Run: 3 | 10 | 10
 Analyst: mei

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2010-73

Station: FR10

Event #: 10

Ship: VECTOR

UTC Date (dd|mmm|yyyy): 30|10|2010

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken								Comments		
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ☒ Pressure	Oxy	Nut	Sal	chl <u>880</u> <u>a</u>	NH ₄ <u>ALK</u>	PH	DOC <u>TOC</u>	POC		CO ₂ <u>11</u>	
1	19					1.4						✓	✓	✓	✓	
2	20	2017	6.304			1.4	✓	✓	✓	✓	✓					
3		2090	6.296													
4																
5																
6																
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24																

Watchkeeper(s): 15

Bottom Depth: 370 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start		
Bottom	<u>0754</u>	
End		

Positional Information

Start Lat: 49 ° 10.006 N
Lon: 123 ° 32.893 W

Bottom Lat: 49 ° 10.006 N
Lon: 123 ° 32.893 W

End Lat: 49 ° 10.006 N
Lon: 123 ° 32.893 W

Oxygen Info For This Cast

Blank Value: 0.003 mL · L⁻¹
Std Value: 0.832 mL · L⁻¹
*Date Run: 3|11|10
Analyst: Mei

* Oxygen blanks and standards should be run daily, if possible

Event #	Station	Samp #	Niskin #	Firing Order	Pressure	Salinity: Bottle	Oxygen: Dissolved	Nitrate_plus_Nitrite	Silicate	Phosphate	pH sampling	CTD DO	CTD Sal
11	SOGN	21	1	1	324.3	-99	-99	-99	-99	-99	x	2.78	30.9079
11	SOGN	22	2	2	325.4	30.9136	2.77	29	66.3	2.67		2.78	30.9079
11	SOGN	23	3	3	303.3	-99	-99	-99	-99	-99	x	2.8	30.9071
11	SOGN	24	4	4	302.9	30.9077	2.717	29	65.1	2.65		2.8	30.9071
11	SOGN	25	5	5	251.0	-99	-99	-99	-99	-99	x	2.85	30.8816
11	SOGN	26	6	6	251.3	30.884	2.853	29	62.9	2.61		2.84	30.8817
11	SOGN	27	7	7	202.3	-99	-99	-99	-99	-99	x	2.88	30.8432
11	SOGN	28	8	8	202.8	30.8425	2.912	29.1	60.8	2.59		2.87	30.8436
11	SOGN	29	9	9	152.0	-99	-99	-99	-99	-99	x	2.93	30.7481
11	SOGN	30	10	10	152.5	30.7492	2.934	29.2	57.2	2.55		2.92	30.7489
11	SOGN	31	11	11	102.9	-99	-99	-99	-99	-99	x	2.77	30.444
11	SOGN	32	12	12	79.4	30.1161	3.046	30.6	61.5	2.68		2.97	30.1513
11	SOGN	33	13	13	79.0	-99	-99	-99	-99	-99	x	2.98	30.1512
11	SOGN	34	14	14	53.7	29.3187	4.658	26	55.7	2.28		4.58	29.3809
11	SOGN	35	15	15	54.0	-99	-99	-99	-99	-99	x	4.46	29.408
11	SOGN	36	16	16	33.5	28.9637	5.388	23.5	52.7	2.09		5.34	28.9738
11	SOGN	37	17	17	33.7	-99	-99	-99	-99	-99	x	5.35	28.9778
11	SOGN	38	18	18	24.3	28.7519	5.334	22.8	52.1	2.04		5.34	28.7519
11	SOGN	39	19	19	24.4	-99	-99	-99	-99	-99	x	5.33	28.7513
11	SOGN	40	20	20	14.1	28.3083	5.687	21.1	49.6	1.88		5.7	28.2908
11	SOGN	42	22	21	14.3	28.2999	5.785	20.9	49.5	1.87		5.7	28.2904
11	SOGN	43	23	22	1.8	-99	-99	-99	-99	-99	x	5.76	28.2766
11	SOGN	44	24	23	2.1	28.291	5.738	20.8	49.4	1.87		5.75	28.2756

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